

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION

ORDER NO. 81-50

WATER RECLAMATION REQUIREMENTS FOR:

NEIL SMITH  
EXPERIMENTAL HYDROLYSIS, FERMENTATION,  
AND DISTILLATION PLANT,  
SONOMA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter called the Board) finds that:

1. Neil Smith (hereinafter discharger) submitted a Report of Waste Discharge on August 5, 1980, and submitted subsequent information by letter on May 13, 1981 for discharge of wastewater from a small-scale fuel alcohol plant proposed to be located on his property, adjacent to Petaluma River at 7600 Lakeville Highway in Sonoma County.
2. The discharger proposes to discharge up to 50,000 gallons per year during Phase I of the operation (1981), increasing the waste to 1,000,000 gallons per year for Phase II of the operation (1982), and ultimately discharge 3,000,000 gallons per year for Phase III (1984).
3. The principal source of wastewater will be the organic stillage remaining after distilling off the alcohol, and the washdown water from the organic feedstock and equipment washing.
4. The waste management system consists of the following elements:
  - a. Collection system - all wastewater will be collected in an underground collection vessel and pumped directly to a waste holding pond.
  - b. Waste holding pond - a 79.5 acre feet holding pond will be utilized to store and stabilize wastewater and incident rainfall.
  - c. Irrigation system - during the dry season, reclaimed water will be transported and applied to a fodder crop over 400 acres as shown on the attached map, which is hereby made a part of this Order.
5. The discharger's residence is located adjacent to the distillation plant. The discharger has a conventional septic tank and leaching system for domestic waste previously approved by the Sonoma County Health Department. This will remain separate from the distillation waste **system**.

6. The Board adopted a Water Quality Control Plan (Basin Plan) for the San Francisco Bay Basin in April 1975.
7. The beneficial uses of the Petaluma River as set forth in the Basin Plan include:
  - Commercial and naval shipping
  - Water recreation
  - Fish and wildlife habitat and migration
  - Preservation of rare and endangered species
  - Esthetic enjoyment
8. The County of Sonoma completed an Initial Study, for which a Negative Declaration was issued on April 1, 1981, after determination that the project as described will have no substantial adverse effect on the environment, in accordance with the California Environmental Quality Act (Public Resources Code Section 2100 et. seq.).
9. The Board has notified the discharger and interested agencies and persons of its intent to prescribe water reclamation requirements for the discharge and has provided them with an opportunity for a public hearing and opportunity to submit their written views and recommendations.
10. The Board, in a public meeting, heard and considered all comments pertaining to the water reuse.

IT IS HEREBY ORDERED, pursuant to the provisions of Division 7 of the California Water Code and regulations adopted thereunder, that the discharger shall comply with the following:

A. Discharge Specifications

1. The treatment or disposal of waste shall not create a nuisance as defined in Section 13050(m) of the California Water Code.
2. The disposal of waste shall not cause a degradation of ground water suitable for domestic use, nor cause an increase in any quality parameter that would make ground water unsuitable for irrigation.
3. A minimum of 2 feet of freeboard shall be maintained in the pond at all times to prevent the threat of overflows.
4. The reclaimed water shall be at all times an oxidized water and shall meet the following quality limits at all times:

Settleable Solids	0.5 ml/l-hr maximum
Dissolved Oxygen	2.0 mg/l, minimum
Dissolved Sulfide	0.1 mg/l, maximum

5. Users of reclaimed wastewater shall manage its application so as to minimize mosquito breeding. Users shall comply with requirements of the local Mosquito Abatement District.
6. The pond shall be protected against erosion, washout or flooding from a flood having a predicted recurrence interval of once in 100 years.

B. Prohibitions

1. The waste shall not be allowed to escape from the discharger's property into the waters of the State via surface flow, sub-surface flow, or airborne spray.
2. Waste stored in the pond shall not exceed 3,000,000 gallons per year.
3. No waste shall be applied to the disposal area when the soil is saturated or during periods of rain.
4. No sanitary waste shall be disposed of to the waste holding pond. Sanitary waste shall be discharged only to the septic tank and leachfield system, and shall remain below ground at all times.
5. If a discharge specification or prohibition should be violated, the irrigation with reclaimed wastewater shall be immediately terminated and not resumed until the discharger has corrected all violations and conditions which would permit the violations to recur.

C. Provisions

1. All necessary waste handling facilities shall be constructed and operable before the discharge of waste commences.
2. The discharger shall comply with the Self-Monitoring Program as ordered by the Executive Officer.
3. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the discharger, the discharger shall notify the succeeding owner or operator of the existence of the Order by a letter, a copy of which shall be forwarded to this Board.
4. The discharger shall permit the Regional Board:
  - a. Entry upon premises on which the wastes are located;
  - b. Access to copy any records required to be kept under terms and conditions of the Order;
  - c. Inspection of monitoring equipment or records; and;
  - d. Sampling of any discharge and reclaimed water.

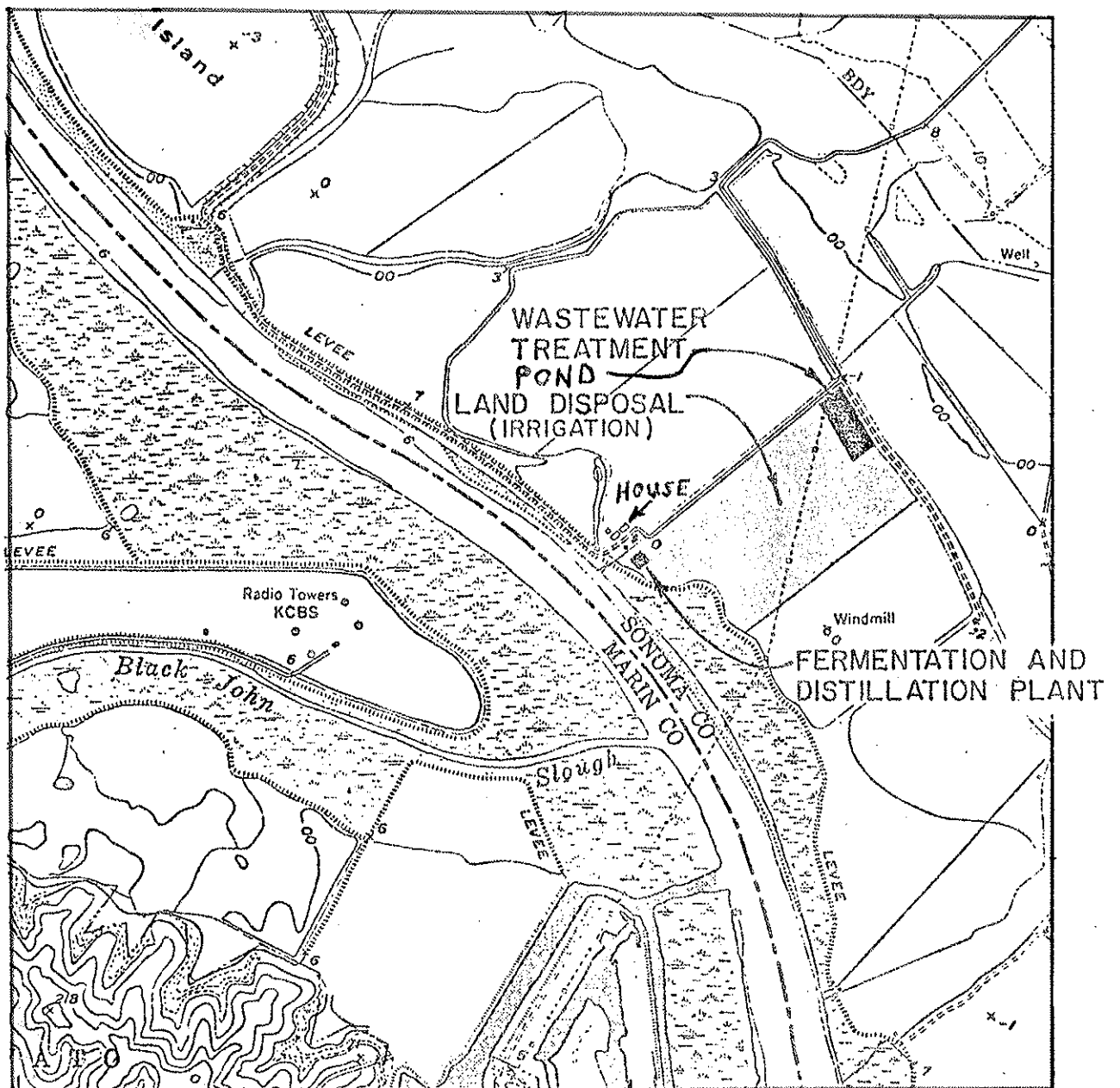
5. The discharger shall file with the Regional Board a report of waste discharge at least 120 days before making any material change or proposed change in the character, location, or volume of the discharge.
6. This Board will review the Order periodically and may revise the requirements when necessary.

I, Fred H. Dierker, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on September 16, 1981.

FRED H. DIERKER  
Executive Officer

Attachments:

Map  
Self-Monitoring Program



Attachment to Water Reclamation Requirements for:  
Neil Smith  
Experimental Hydrolysis, Fermentation and  
Distillation Plant  
Sonoma County

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM  
FOR

Neil Smith - Experimental Hydrolysis

Fermentation Distillation Plant

ORDER NO. 81-50

CONSISTS OF

PART A

## PART A

### I. GENERAL

Reporting responsibilities of waste dischargers are specified in Sections 13225(a), 13267(b), 13268, 13383, and 13387(b) of the California Water Code and this Regional Board's Resolution No. 73-16.

The principal purposes of a monitoring program by a waste discharger, also referred to as a self-monitoring program, are:

1. To document compliance with waste discharge requirements and prohibitions established by this Regional Board.
2. To facilitate self-policing by the waste discharger in the prevention and abatement of pollution arising from waste discharge.

### II. DESCRIPTION OF SAMPLING STATIONS AND SCHEDULE OF SAMPLING, ANALYSIS AND OBSERVATIONS

#### A. Influent:

Monthly, determine flow in million gallons per month, to be reported as quarterly average.

#### B. Pond:

1. Monthly, determine settleable solids, pH and D.O. (mg/l) at one surface station.

Where D.O. is less than 2.0 mg/l, determine dissolved sulfide concentration. Where dissolved sulfide concentration is less than 0.1 mg/l, notify the Regional Board within 48 hours.

2. Monthly, determine freeboard in pond. If freeboard is observed less than 2 feet, notify the Regional Board within 48 hours.
3. Monthly, observe perimeter of pond system for odor. Report presence or absence, characterization, source and distance of travel.

#### C. Effluent and Spray Disposal Field:

1. When spraying commences, notify Regional Board.
2. When spraying, observe perimeter of spray area for runoff daily. If runoff occurs, determine BOD and notify the Regional Board.

### III. REPORTS TO BE FILED WITH THE REGIONAL BOARD

#### 1. Violations of Requirements

In the event the discharger is unable to comply with the conditions of the waste discharge requirements and prohibitions due to:

- (a) maintenance work, power failures, or breakdown of waste treatment equipment, or
- (b) accidents caused by human error or negligence, or
- (c) other causes such as acts of nature,

the discharger shall notify the Regional Board office by telephone as soon as he or his agents have knowledge of the incident and confirm this notification in writing within two weeks of the telephone notification. The written report shall include pertinent information explaining reasons for the non-compliance and shall indicate what steps were taken to prevent the problem from recurring.

#### 2. Bypass Reports

Bypass reporting shall be an integral part of regular monitoring program reporting and a report on bypassing of untreated waste or bypassing of any treatment unit(s) shall be made which will include cause, time and date, duration and estimated volume of waste bypassed, method used in estimating volume, and persons notified, for planned and/or unplanned bypasses.

#### 3. Self-Monitoring Reports

Written reports shall be filed quarterly and submitted by the fifteenth day of the following month. The reports shall be comprised of the following:

##### a. Letter of transmittal:

A letter transmitting self-monitoring reports should accompany each report. Such a letter shall include a discussion of requirement violations found during the past months and actions taken or planned for correcting violations. Monitoring reports and letter transmitting reports shall be signed by the discharger or other duly authorized employee. The letter shall contain a statement by the official, under penalty of perjury, that to the best of the signer's knowledge the report is true and correct.



b. Sampling and Observation Data:

All requirements as specified in II.A, II.B, and II.C of this Self-Monitoring Program should be addressed and reported.

c. List of Approved Analyses

1. Listing of analyses for which the discharger is approved by State Department of Health.
2. List of analyses performed for the discharger by another approved laboratory (and copies of reports signed by the laboratory director of that laboratory shall also be submitted as part of the report).

I, Fred H. Dierker, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 81-50
2. Is effective on the date shown below.
3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger, and revisions will be ordered by the Executive Officer.

FRED H. DIERKER  
Executive Officer

Effective Date 9/29/81